

# Current **GENSER** status

## Generator validation

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07.02.2007

## TESTS package

### Generators tested:

- Alpgen
- EvtGenLHC
- Herwig
- Herwig++
- Photos
- Pythia6 (NEW)
- Pythia8
- Sherpa (NEW)
- Tauola
- TopRex

### Interoperation with:

- HepMC
- LHAPDF

### Platforms:

- slc3\_ia32\_gcc323
- slc4\_ia32\_gcc34
- slc4\_amd64\_gcc34

### Observables:

- $\sigma_{\text{tot}}(pp \rightarrow Z + jets, W + X, t + X)$
- Ratios of  $\sigma_{\text{tot}}$
- Averaged characteristics of a final state

## TESTS package

Current status:

<http://lcgapp.cern.ch/project/simu/generator/genval.html>

permanently updated

## To be included into TESTS

$$p\bar{p} \rightarrow W^\pm (\rightarrow e^\pm \nu) + jets, \quad \sqrt{s} = 1.8 \text{ TeV},$$

$$\frac{d\sigma}{dp_T(W)} \times Br(W \rightarrow e\nu)$$

**Generators:** Alpgen, Sherpa(?), Pythia6(?)

**Reference data:**

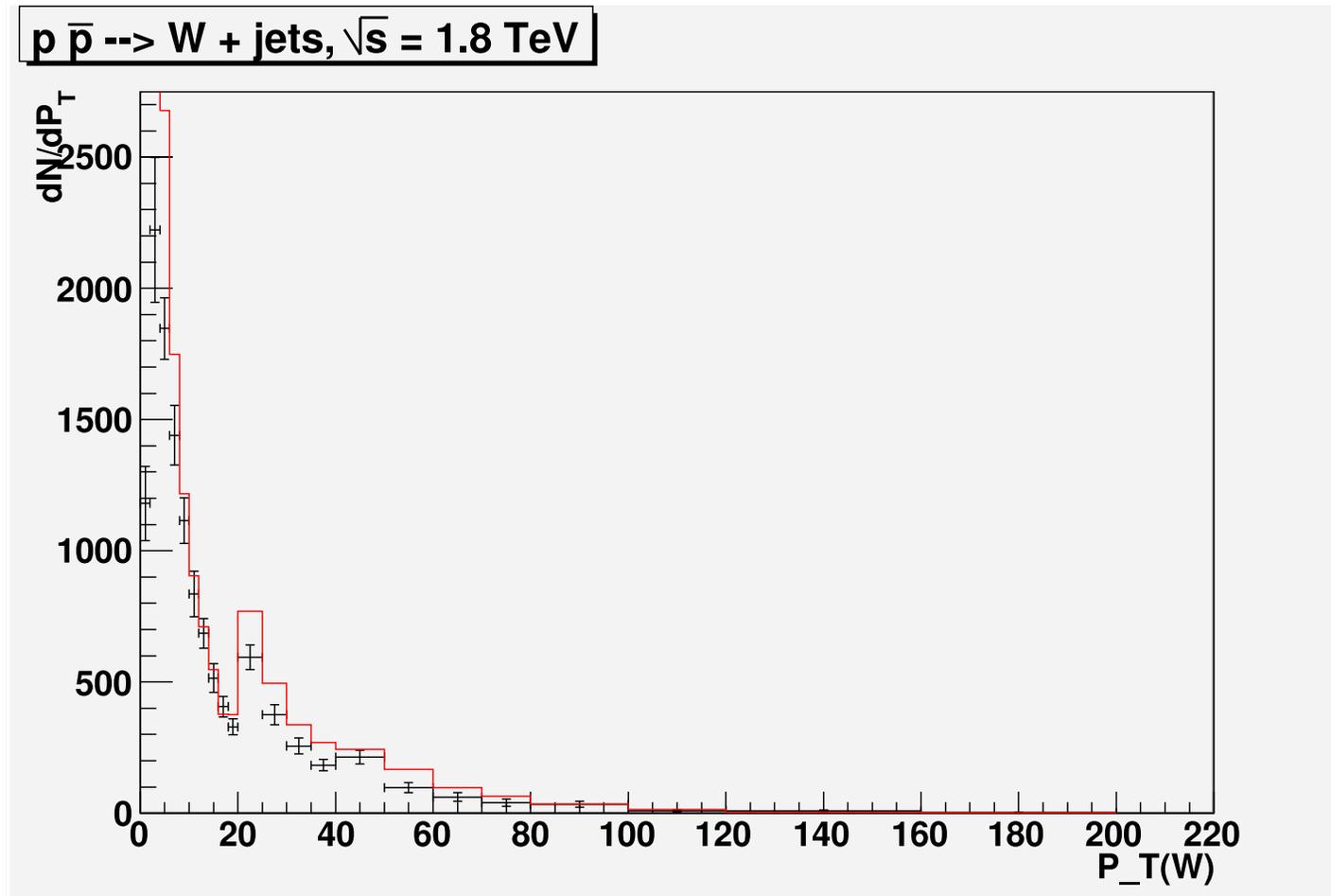
**CDF:** FERMILAB-THESIS-1999-38; Phys.Rev.Lett **80**, 5498 (1998) ...

**DØ** : Phys.Lett. **B 517**, 299 (2001); *ibid.* **B 513**, 292 (2001); hep-ex/0106027

**Single test characteristic:**  $\chi^2/DOF$

# AlpGen + Pythia6 vs. DØ

DØ : V.M. Abazov, *et al.*, Phys. Lett. B 517 (2001) 299



## Conclusion

- TESTS completely migrated to GENSER2 structure
- New tests added: Sherpa, Pythia6
- Current status is displayed at  
<http://lcgapp.cern.ch/project/simu/generator/genval.html>
- Trying to add a comparison of  $W$   $p_T$  distribution with real measurements from Tevatron
- **Requests and suggestions from experiments are expected.**